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PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: MARVIN J. SPIVAK
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New Citations

PCT

WRITTEN OPINION

(PCT Rule 66)

Reply due 10-11-98
(Vol.)

| | | |
|---|---|---|
| Applicant's or agent's file reference 5244061/PCT | | Date of Mailing (day/month/year) 11 SEP 1998 |
| International application No. PCT/US97/07649 | International filing date (day/month/year) 14 MAY 1997 | Priority date (day/month/year) 14 MAY 1996 |
| International Patent Classification (IPC) or both national classification and IPC IPC(6): G06F 15/00 and US Cl.: 395/114 | | |
| Applicant RICOH CORPORATION | | |

I.D.S. COPYDOCKET NO. 5244-060-21. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I Basis of the opinion
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step or industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

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SEP 14 1998

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 14 SEPTEMBER 1998.

| | |
|--|---|
| Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230 | Authorized officer DAVID MOORE <i>[Signature]</i> Telephone No. (703) 305-8751 |
|--|---|

WRITTEN OPINION

International application No.

PCT/US97/07649

I. Basis of the opinion

1. This opinion has been drawn on the basis of (*Substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".*):

the international application as originally filed.

the description, pages 1-16, as originally filed.
pages NONE, filed with the demand.
pages NONE, filed with the letter of _____.

the claims, Nos. 1-20, as originally filed.
Nos. NONE, as amended under Article 19.
Nos. NONE, filed with the demand.
Nos. NONE, filed with the letter of _____.

the drawings, sheets/fig 1-8, as originally filed.
sheets/fig NONE, filed with the demand.
sheets/fig NONE, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

the description, pages NONE

the claims, Nos. NONE

the drawings, sheets/fig NONE

3. This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box Additional observations below (Rule 70.2(c)).

4. Additional observations, if necessary:

NONE

WRITTEN OPINION

International application No.

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V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. STATEMENT**

| | | |
|-------------------------------|--------------------|-----|
| Novelty (N) | Claims <u>1-20</u> | YES |
| | Claims <u>NONE</u> | NO |
| Inventive Step (IS) | Claims <u>NONE</u> | YES |
| | Claims <u>1-20</u> | NO |
| Industrial Applicability (IA) | Claims <u>1-20</u> | YES |
| | Claims <u>NONE</u> | NO |

2. CITATIONS AND EXPLANATIONS

Claims 1-20 lack an inventive step under PCT Article 33(3) as being obvious over Bertran et al. (article "Print Rasterization Moves Hostward With Support From SCSI", Computer Technology Review, 12(1992)May, No. 6, Los Angeles, CA US) in view of Osbon (article "Jandel Scientific Announces Java (R) 1.4", News Release, Corte Madera, CA March 1, 1991).

With regard to claims 1, Bertran et al. inherently teaches a computer product comprising a computer storage medium (figure 3, items labeled "Document Data File, Application Program, Image Rasterization & Font Rendering and SCSI Driver") and a computer code mechanism embedded in the computer storage for causing a printer to control rasterization of an image (figure 3, item labeled "Application Program"), a first computer code device configured to receive a print request as a series of commands on different environments such as Unix and Macintosh (page 104, first column), a second computer code device configured to rasterize the series of commands into an image (figure 3, items labeled "Image Rasterization & Font Rendering"), and a third computer code device configured to output the image on a recording medium (figure 3, item labeled "SCSI Driver"). Bertran et al. does not teach the print request being done using JAVA commands. However, Osbon teaches that it is well known in the art to use JAVA commands in a printing environment (page 1). Therefore, it would have been obvious to one of ordinary skill in the art to provide the printing system having multiple environment as taught by Bertran et al. with a JAVA environment as taught by Osbon, in order to take advantage of JAVA's versatility and portability which is independent of operating systems and hardware architectures, thereby allowing the printing system of Bertran et al. to greatly improve overall program execution.

With regard to claim 2, Neither Bertran et al. or Osbon teach the third computer code device comprising a fourth computer code device configured to receive an end of page command and to output the image after receiving the end of page command. Examiner asserts that it is well known in the art to provide a computer code device configured to output image data to a recording medium with a computer code device configured to receive an end of page (Continued on Supplemental Sheet.)

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

TIME LIMIT:

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

V. 2. REASoNED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):

command and outputting the page after receiving the page command. Therefore, it would have been obvious to one of ordinary skill in the art to provide system of Bertran et al. with a computer code device configured to receive an end of page command and outputting the page after receiving the page command, in order to control the lay out of information on the recording medium.

With regard to claim 3, the limitations of claim 3 are discussed in the limitations of claims 1 and 2. (The printer control configuration using an interface is read to be equivalent to the series of JAVA commands used to the rasterization that control the interface between the host and the printer, the second computer code device configured to send the printer control interface to a remote is read to be equivalent to the second code device configured to rasterize the series of JAVA commands into an image, the third computer code device configured to receive a series of printer control parameters in response to sending control interface is read to be equivalent to the third computer code device configured to output the image on a recording image and the fourth computer code device configured to update a control memory of the printer based of printer control parameters is read to be equivalent to the fourth computer code device configured to receive an end of page command and to output the image after receiving the end of page command and storing the data outputted into the image buffer of the printer as depicted on figure 3).

With regard to claims 4,5 and 20, Neither Bertran et al. or Osbon teach the fourth computer code device comprising a fifth computer code device configured to store in a database a series of printer control parameters in the control memory of the printer based on an identification or Internet address of the remote printer. Examiner asserts that it is well known in the art to store in a database a series of printer control parameters in the memory of a printer based on an identification or of the remote printer. Therefore, it would have been obvious to one of ordinary skill in the art to provide memory of the printer with a computer code device configured to store a series of printer control parameters in the memory of a printer based on an identification or of the remote printer, in order to control the communication of data between the printer and host computer within a network, thereby, allowing the host of Bertran et al. to communicate with different printers connected to the SCSI bus or network.

With regard to claims 6 and 7, the limitations of claims 6 and 7 are discussed in the limitations of claims 1 and 2. (The printer control of the layout and printing order reads to be equivalent to the rasterization of the print job that control the interface between the host and the printer, which controls the layout of the information on the recording medium and the order at which the jobs are printed.

With regard to claims 8-13 and 15-19, Bertran et al. teaches a bi directional communication between the host and the printer(s) capable of being used for receiving computer code information such as status reports of the printer such as paper jam, toner status and to provide interactive help to the user or for downloading information to the printer such as font (figure 3, and pages 106 and 107), but fails to explicitly describe the features of having a computer code to keep track of the print request, sending only a pending job to a specified computer having an identification number, canceling a pending job, pausing a pending job, resuming a pending job, number of printed pages, and having a computer code device using multi tasking of respective threads on a uniprocessor. Examiner asserts that it is well known in the art to communicate information by using a computer code using a bi directional communication between a host and a printer such as status of the print request, sending only a pending job to a specified computer having an identification number, canceling a pending job, pausing a pending job, resuming a pending job, number of printed pages, and having a computer code device using multi tasking of respective threads on a uniprocessor. Therefore, it would have been obvious to one of ordinary skill in the art to provide the memory of Bertran et al.'s printer with a computer code device configured to perform these features between the bi directional communication, in order for the user to obtain information from the printer as the status of the requested print job, restricting the access to information to computers registered within the system, allowing the user to cancel a pending job, resuming a print job when the system is down, indicating to the user the number of pages printed within a job request, and allowing the system to concurrently perform different operation to improve the efficiency of the printer.

With regard to claim 14, Osbon teaches that it is well known in the art to use JAVA commands in a printing environment (page 1), but fails to use a JAVA applet. Examiner asserts that it is well known in the art to use a JAVA applet. Therefore, it would have been obvious to one of ordinary skill in the art to provide a JAVA applet to the system taught by Bertran et al. and Osbon above, since it is well known in the art that a JAVA applet allows a user to execute programs through a web browser, thereby allowing users to order print request using a web browser.

WRITTEN OPINION

International application No.

PCT/US97/07649

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 11

NEW CITATIONS

Bertran et al., Print Rasterization Moves Hostward With Support From SCSI, Computer Technology Review, 12 May 1992,
pages 104-107